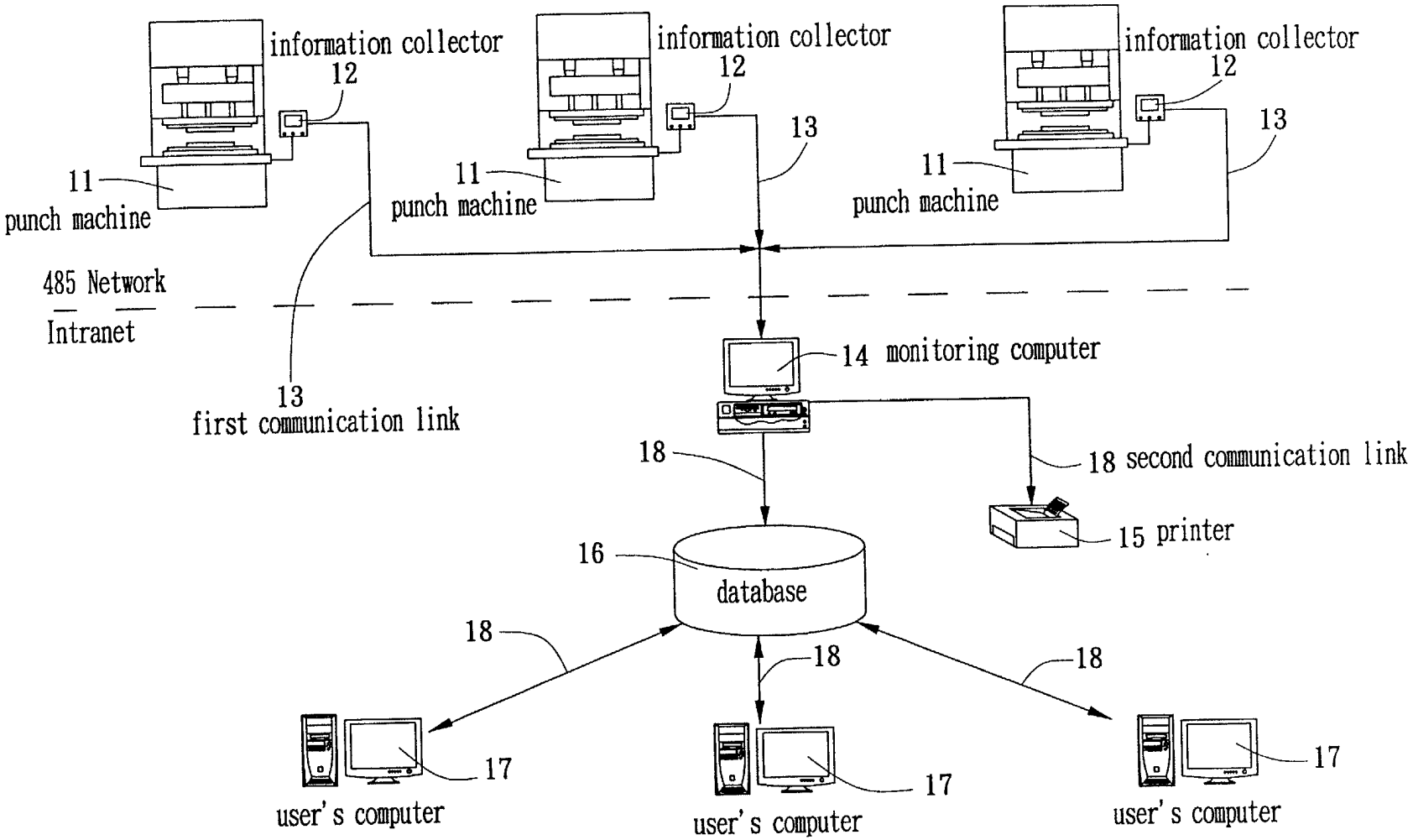
information collector
12
11
punch machine
information collector
12
13
11
punch machine
information collector
12
13
11
punch machine
485 Network
Intranet
13
first communication link
14 monitoring computer
18
18 second communication link
15 printer
16
database
18
18
18
17
user's computer
17
user's computer
17
user's computer

FIG. 1

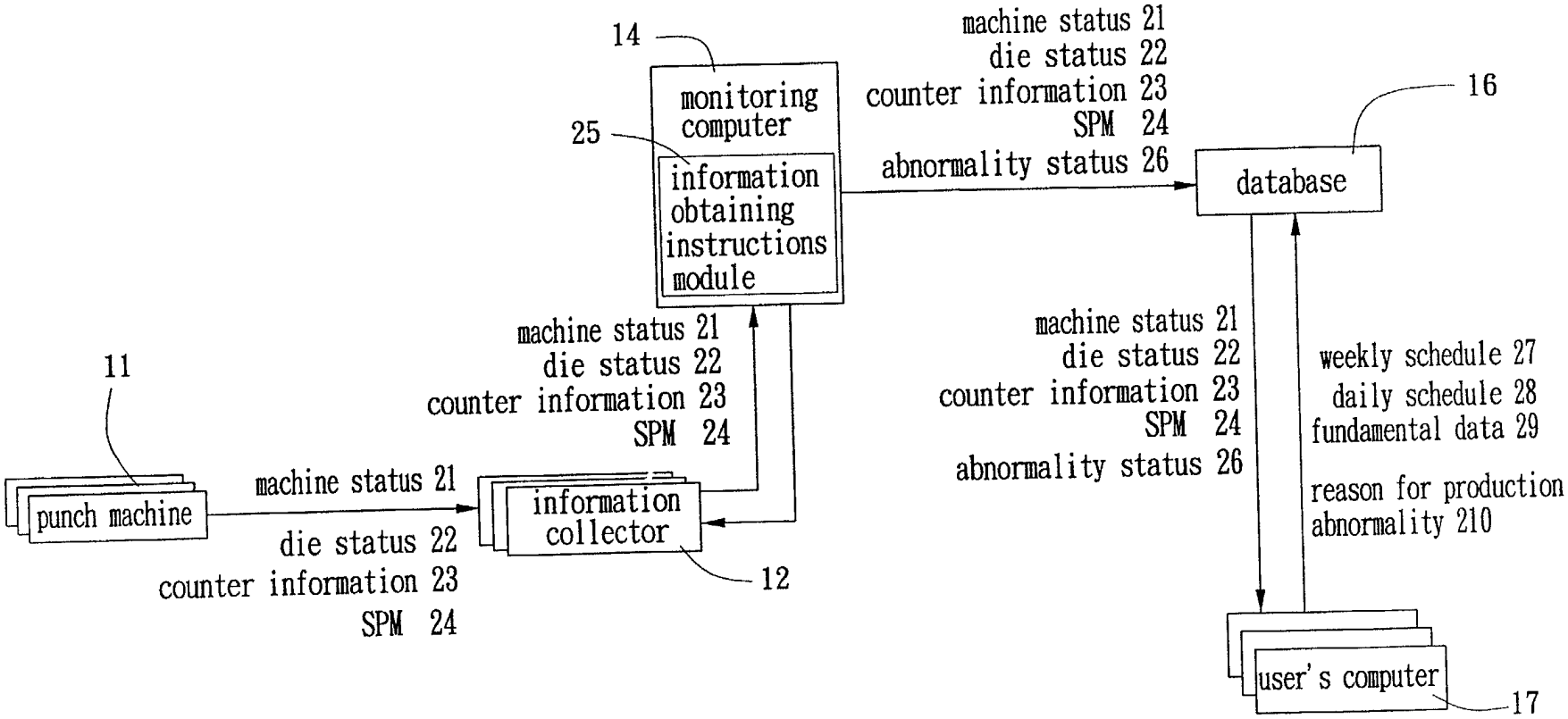
14
monitoring computer
25
information obtaining instructions module
machine status 21
die status 22
counter information 23
SPM 24
abnormality status 26
16
database
machine status 21
die status 22
counter information 23
SPM 24
abnormality status 26
weekly schedule 27
daily schedule 28
fundamental data 29
reason for production abnormality 210
11
punch machine
machine status 21
die status 22
counter information 23
SPM 24
information collector
12
user's computer
17

FIG. 2

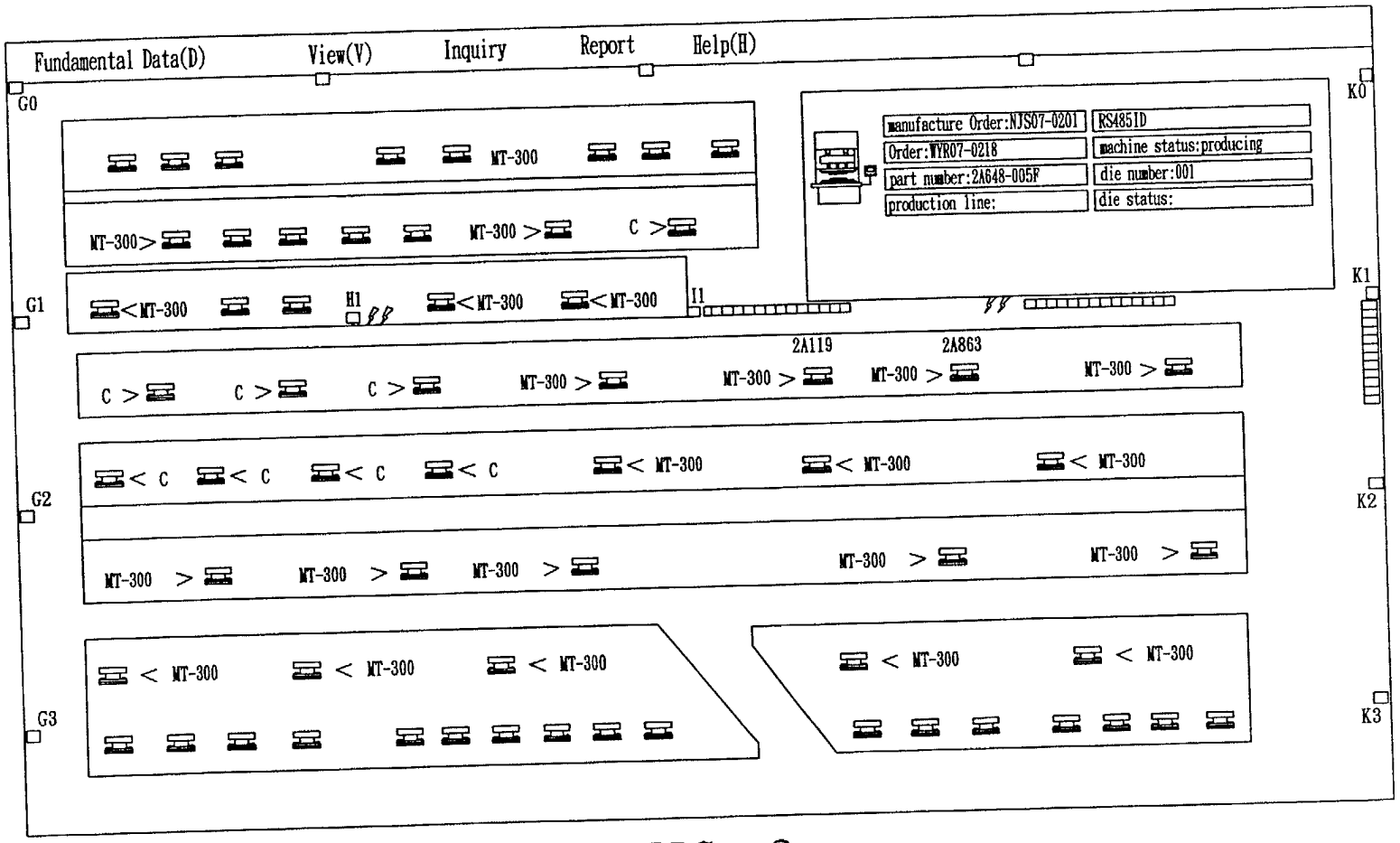
Fundamental Data(D)
View(V)
Inquiry
Report
Help(H)
G0
K0
G1
K1
H1
I1
G2
K2
G3
K3
MT-300
manufacture Order:NJS07-0201
RS485ID
Order:WYR07-0218
machine status:producing
part number:2A648-005F
die number:001
production line:
die status:
2A119
2A863

FIG. 3

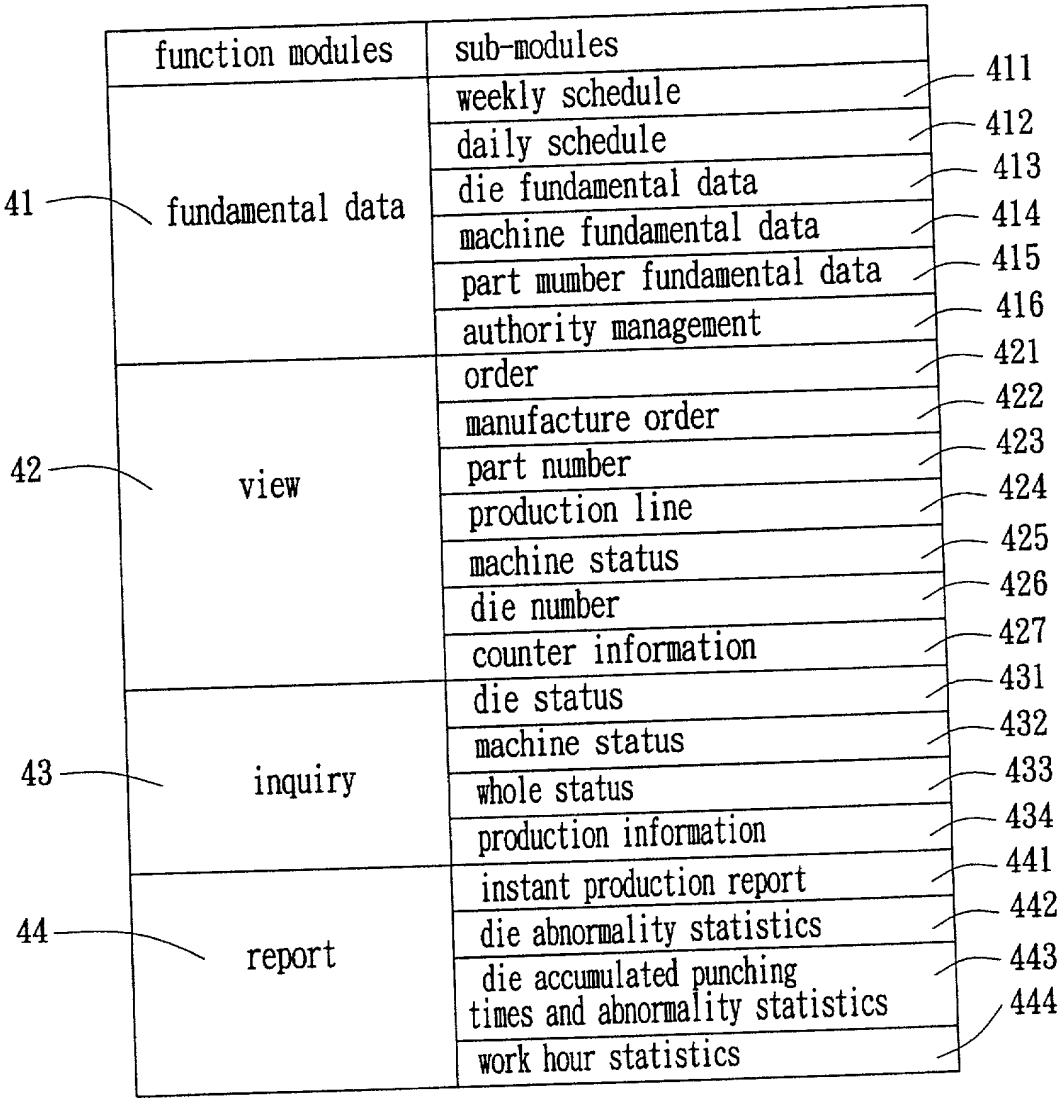
function modules
sub-modules
41
fundamental data
weekly schedule
daily schedule
die fundamental data
machine fundamental data
part mumber fundamental data
authority management
411
412
413
414
415
416
42
view
order
manufacture order
part number
production line
machine status
die number
counter information
421
422
423
424
425
426
427
43
inquiry
die status
machine status
whole status
production information
431
432
433
434
44
report
instant production report
die abnormality statistics
die accumulated punching times and abnormality statistics
work hour statistics
441
442
443
444

FIG. 4

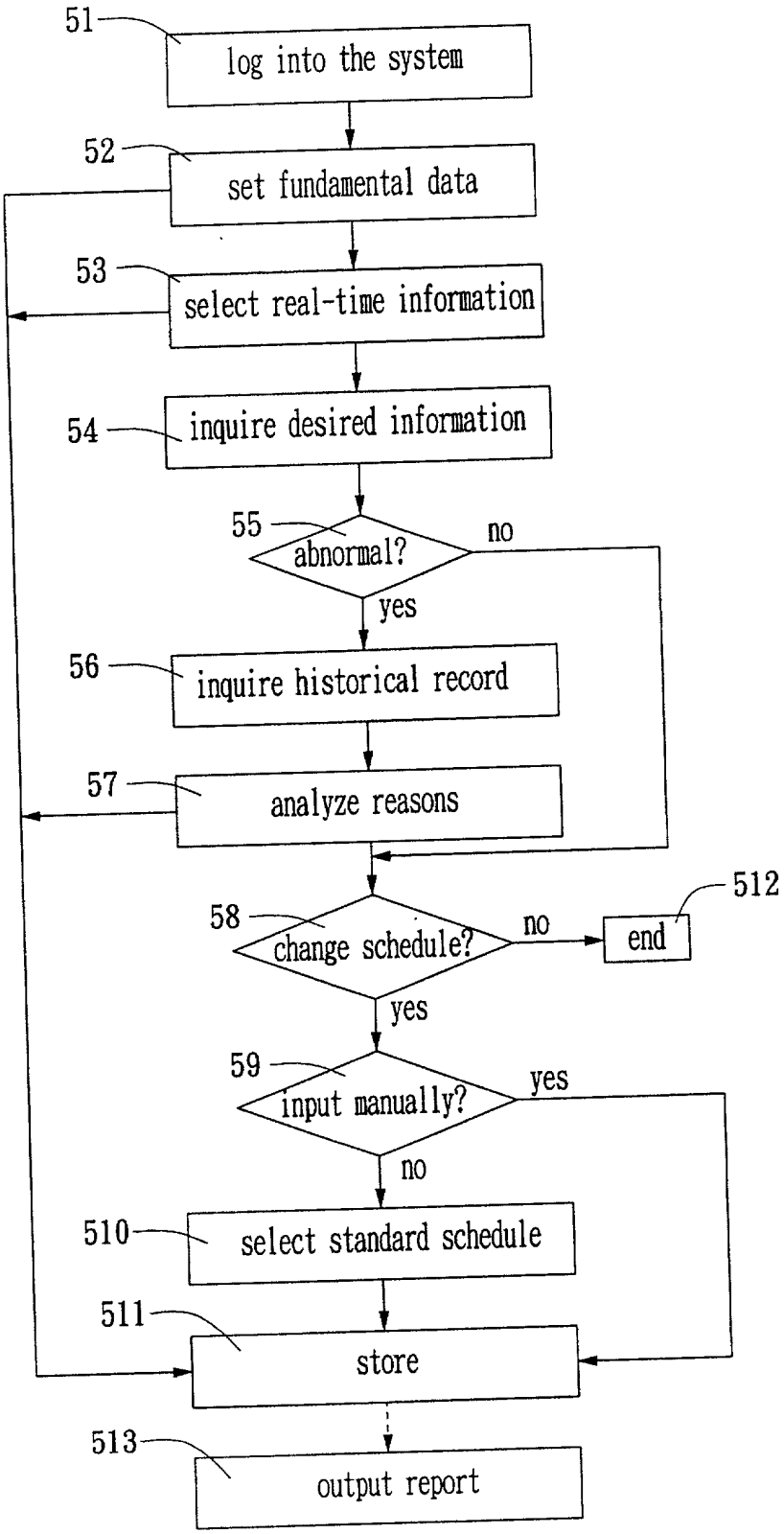
51
log into the system
52
set fundamental data
53
select real-time information
54
inquire desired information
55
abnormal?
no
yes
56
inquire historical record
57
analyze reasons
58
change schedule?
no
512
end
yes
59
input manually?
yes
no
510
select standard schedule
511
store
513
output report

FIG. 5

Enter 3304 on 09/23/2004

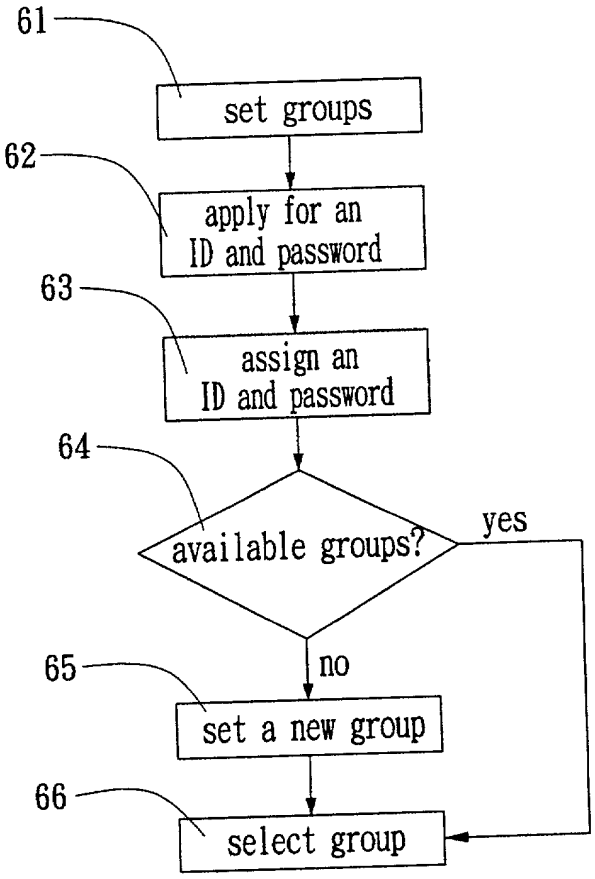

FIG. 6